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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,830

03/09/2004

Roger F. Buelow II

2506

2467

7617 7590 04/09/2007  
BRUZGA & ASSOCIATES  
11 BROADWAY, SUITE 715  
NEW YORK, NY 10004

EXAMINER

RUDE, TIMOTHY L

ART UNIT

PAPER NUMBER

2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/796,830

Applicant(s)

BUELOW ET AL.

Examiner

Timothy L. Rude

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 6-19 and 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 20 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 December 2006 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

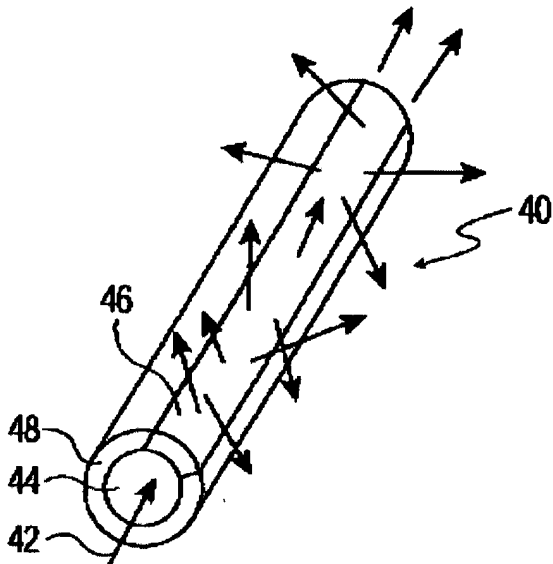
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

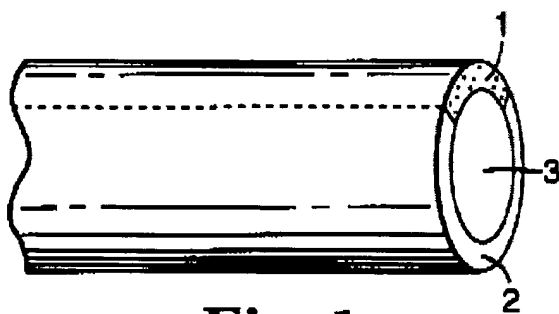
As to claim 1, Imamura discloses a light pipe [col. 6, lines 33-63] with directional side-light extraction, comprising: a) a core, 3; b) light-extraction means, 1, applied to the core over only a part of the cross-sectional perimeter of the core and over an active section in which directional side lighting is desired; and

Applicant's Figure 2c:



**FIG. 2c**

Imamura Figure 1:



**Fig. 1**

c) the light-extraction means comprising a single strip of material, 1, over the active section of the light pipe, said single strip having light-scattering material, the light-scattering material comprising inorganic material [col. 6, lines 51-65] and being

physically discrete from core material and being physically discrete from any cladding material on the core [inorganic particles in a discrete single strip that does not extend into the cladding, 2, on either side and does not extend into the core, 3].

However, Imamura does not explicitly state in the text that the light-scattering material is discrete "totally".

Imamura teaches a number of example, art recognized, alternate methods suitable for the same purpose of making his invention [MPEP 2144.06] including example 8 wherein the strip is made from entirely different materials relative to the cladding, thereby resulting in structure wherein the strip is discrete from the cladding in all reasonable meanings of the word.

Imamura is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add a strip made from entirely different materials relative to the cladding, thereby resulting in a structure wherein the strip is discrete from the cladding in all reasonable meanings of the word as an art recognized alternate method suitable for the same purpose of comprising his invention [MPEP 2144.06].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Imamura with a strip made from entirely different materials relative to the cladding, thereby resulting in a structure wherein the strip is discrete from the cladding in all reasonable meanings of the word as an art recognized alternate method suitable for the same purpose of comprising his invention [MPEP 2144.06].

2. Imamura discloses the light pipe of claim 1, wherein the active section comprises a fraction of the length of the light pipe [col. 5, lines 1-3, 43-45, and 50-58].

3. Imamura discloses the light pipe of claim 1, wherein the light pipe has a substantially circular cross section [per Figure 2 and col. 6, lines 4-5].

4. Imamura discloses the light pipe of claim 1, wherein the lumen output as between inlet and outlet portions of the active section is within plus or minus 10 percent of the average value of each other [inherent for short lengths per table at col. 11, lines 47-66].

5. Imamura discloses the light pipe of claim 1, wherein the light-extraction means is a single strip of uniform width over the active section of the light pipe [col. 6, lines 33-63].

20. Imamura discloses the light pipe of claim 1, wherein a substantial section of the light pipe is free of light-extraction means so as to act as a conveyance of light between a light source and a section of the light pipe with light-extraction means [disclosed as desired, Figure 4, and col. 5, lines 1-3, 43-45, and 50-58].

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Imamura.

As to claim 24, Imamura discloses the light pipe of claim 1 rejected above.

Imamura does not explicitly disclose in Figure 1 a strip comprising a substrate.

Imamura discloses in Figure 2 that his invention can be modified such that the strip, 1, becomes a substrate for a portion of the cladding, 2, as an art recognized alternate configuration suitable for the same purpose of forming a side emitting light pipe [col. 5, lines 25-60] as desired depending upon the field of use [MPEP 2144.06].

Imamura is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add a strip that is a substrate [substrate for a portion of the cladding] as an art recognized alternate configuration suitable for the same purpose of forming a side emitting light pipe [col. 5, lines 25-60] as desired depending upon the field of use [MPEP 2144.06].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Imamura with a strip that is a substrate [substrate for a portion of the cladding] of Imamura as an art recognized alternate configuration suitable for the same purpose of forming a side emitting light pipe [col. 5, lines 25-60] as desired depending upon the field of use [MPEP 2144.06].



***Response to Arguments***

Applicant's arguments filed on 11 December 2006 have been fully considered but they are not persuasive.

Applicant's ONLY substantive arguments are as follows:

- (1) Regarding base claim 1, Imamura teaches particles formed in the cladding.
- (2) Regarding base claim 1, Imamura example 1 uses an adhesive.
- (3) Regarding base claim 1, Admitted Prior Art (APA) Applicant has added negative limitations to address APA.
- (4) Dependent claims are allowable because they directly or indirectly depend from an allowable base claim.

Examiner's responses to Applicant's ONLY arguments are as follows:

- (1) It is respectfully pointed out that Applicant teaches an embodiment wherein particles are formed in the cladding. In any case, the elected non-reflective light-extraction means functions as an inefficient cladding. Whether one calls the particle laden zone a cladding is a matter of opinion/semantics. To address Applicant's desires more fully, however, examiner has applied teachings wherein the particles are dispersed in a completely different material relative the cladding. Examiner considers the present rejections to address (properly reject) both the letter and the intent of the present broad claim limitations regarding a discrete strip.
- (2) It is respectfully pointed out that example 1 is not relied upon in the rejections above.

(3) It is respectfully pointed out that specific negative limitations might overcome some rejections that rely upon APA, but one needs to consider what would be rendered obvious by the teachings of APA. Presently, examiner has not relied upon APA for the rejections above.

(4) It is respectfully pointed out that in so far as Applicant has not argued rejection(s) of the limitations of dependent claim(s), Applicant has acquiesced said rejection(s).

Any references cited but not applied are relevant to the instant Application.

### ***Conclusion***

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION COULD HAVE BEEN MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). As a courtesy examiner has made this action non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude  
Examiner  
Art Unit 2871

  
04/01/07